IN THE CLAIMS

Please amend the claims to read as follows:

1.   (Currently Amended) An encoder comprising:

an epoch locator coupled to a frame assembly,

a primary epoch analyzer coupled to the epoch locator, <u>said primary epoch analyzer produces the</u> a plurality of bias removed epoch samples, and

a secondary epoch analyzer coupled to the primary epoch locator,

wherein the encoder compresses a plurality of signals at variable frame rates based on a plurality of prioritized epoch parameters to dynamically reduce signal bandwidth while preserving perceptual signal quality and by combining epochs, by correcting presumed errors in successive epoch lengths, and by extending epoch length patterns indicative of voiced speech areas into unvoiced speech areas, wherein said prioritized epoch parameters are reduced based on each of said plurality of epoch data parameters respective priority, <u>said plurality of epoch parameters including a plurality of reflection coefficients, wherein said primary epoch analyzer converts the plurality of reflection coefficient to a plurality of predictor coefficients, and the plurality of predictor coefficients are used to inverse filter the plurality of bias removed epoch samples to produce a residue signal</u>.

2.   (Original) The apparatus of claim 1, wherein a transmission rate of the plurality of compressed signals is dynamically set.

3.   (Original) The apparatus of claim 1, wherein the plurality of compressed signals are speech signals.

4.   (Original) The apparatus of claim 1, wherein the encoder comprises:

an epoch locator unit;

a first epoch analyzer;

a second epoch analyzer; and

a frame assembler unit.

5.   (Original) The apparatus of claim 4, wherein the plurality of compressed signals in one of half frames and full frames.

6.   (Original) The apparatus of claim 4, further including a network traffic manager coupled to the encoder.

7.   (Original) The apparatus of claim 6, wherein the network manager is one of co-resident with the encoder and remotely located relative to the encoder.

8.   (Previously Amended) The apparatus of claim 1, wherein a priority level of each of the plurality of prioritized epoch parameters is based on quality of speech.

9.   (Currently Amended) A decoder comprising:
        a frame disassembly and parameter decoding unit coupled to an excitation generator;
        a synthesizing filter coupled to the excitation generator; and
        an output scaling and filtering unit coupled to the synthesizing filter,
        wherein the decoder decompresses a plurality of compressed signals that were compressed at variable frame rates based on a plurality of prioritized epoch parameters and by combining epochs, by correcting presumed errors in successive epoch lengths, and by extending epoch length patterns indicative of voiced speech areas into unvoiced speech areas, wherein said prioritized epoch parameters are reduced based on each of said plurality of epoch data parameters respective priority, said plurality of epoch parameters including a plurality of reflection coefficients, wherein said decoder approximates a residue signal produced by inverse filtering a plurality of bias removed epoch samples, where the inverse filtering is driven by a plurality of predictor coefficients that are produced by conversion of the plurality of reflection coefficients.

10.   (Original) The apparatus of claim 9, wherein a transmission rate of the plurality of compressed signals is dynamically set.

11.   (Original) The apparatus of claim 9, wherein the plurality of compressed signals are speech signals.

12.   (Original) The apparatus of claim 9, wherein the decoder comprises:

a frame disassembly and parameter decoding unit;

an excitation generator;

a synthesizing filter; and

an output scaling and filtering unit.

13.   (Previously Amended) The apparatus of claim 9, wherein the plurality of compressed signals decompressed by the decoder at variable frame rates based on the plurality of prioritized epoch parameters improve transmission during dynamically changing bandwidth while preserving perceptual quality of the signals.

14.   (Currently Amended) A program storage device readable by a machine comprising instructions that cause the machine to:

receive a plurality of signals from a first transmission device;

encode the plurality of signals in a compressed format; and

transmit the plurality of signals in a compressed format through a transmission medium at variable frame rates based on a plurality of prioritized epoch parameters and by combining epochs, by correcting presumed errors in successive epoch lengths, and by extending epoch length patterns indicative of voiced speech areas into unvoiced speech areas, to dynamically reduce signal bandwidth while preserving perceptual quality of the signals, wherein said prioritized epoch parameters are reduced based on each of said plurality of epoch data parameters respective priority, said plurality of epoch parameters including a plurality of reflection coefficients, wherein an epoch analyzer converts the plurality of reflection coefficient to a plurality of predictor

coefficients, and the plurality of predictor coefficients are used to inverse filter a plurality of bias removed epoch samples to produce a residue signal.

15.   (Original) The program storage device of claim 14, wherein a transmission rate of the plurality of compressed signals is dynamically set.

16.   (Original) The program storage device of claim 14, wherein the plurality of signals in a compressed format are speech signals.

17.   (Original) The program storage device of claim 14, wherein encode instructions cause the machine to:
        locate an epoch;
        analyze a first epoch;
        analyze a second epoch; and
        assemble a frame.

18.   (Original) The program storage device of claim 17, wherein the transmit of the plurality of compressed signals is in one of a half frame and a full frame.

19.   (Previously Amended) The program storage device of claim 14, further comprising instructions that cause the machine to:
        prioritize each of the plurality of prioritized epoch parameters based on quality of speech.

20.   (Currently Amended) A program storage device readable by a machine comprising instructions that cause the machine to:
        receive the plurality of signals in a compressed format through a transmission medium at variable frame rates based on a plurality of prioritized epoch parameters to reduce signal bandwidth and by combining epochs, by correcting presumed errors in successive epoch lengths, and by extending epoch length patterns indicative of voiced speech areas into unvoiced speech areas, while preserving perceptual quality of the signals;

decode the plurality of compressed signals; and

transmit the decoded signals to a first receiving device,

wherein said prioritized epoch parameters are reduced based on each of said plurality of epoch data parameters respective priority, said plurality of epoch parameters including a plurality of reflection coefficients, wherein said instruction to decode approximates a residue signal produced by inverse filtering a plurality of bias removed epoch samples, where the inverse filtering is driven by a plurality of predictor coefficients that are produced by conversion of the plurality of reflection coefficients.

21.   (Original) The program storage device of claim 20, wherein a transmission rate of the plurality of compressed signals is dynamically set.

22.   (Original) The program storage device of claim 20, wherein the plurality of signals in a compressed format are speech signals.

23.   (Original) The program storage device of claim 20, wherein decode instructions cause the machine to:

disassemble and parameter decode a frame;

generate an excitation;

synthesize and filter; and

scale and filter an output.

24.   (Previously Amended) The program storage device of claim 20, wherein the receipt of the plurality of compressed signals at variable frame rates based on the plurality of prioritized epoch parameters improves signal transmission during dynamically changing bandwidth of the transmission medium while preserving perceptual quality of the signals.

25.   (Previously Amended) The program storage device of claim 20, further comprising instructions that cause the machine to:

prioritize each of the plurality of prioritized epoch parameters based on quality of speech.

26.   (Currently Amended) A method comprising:

receiving a plurality of signals from a transmission device;

encoding the plurality of signals in a compressed format; ~~and~~

transmitting the plurality of signals in a compressed format through a transmission medium at variable frame rates based on a plurality of prioritized epoch parameters and by combining epochs, by correcting presumed errors in successive epoch lengths, and by extending epoch length patterns indicative of voiced speech areas into unvoiced speech areas, to reduce signal bandwidth while preserving perceptual quality of the signals, <u>and</u>

<u>analyzing a first epoch,</u>

wherein said prioritized epoch parameters are reduced based on each of said plurality of epoch data parameters respective priority, <u>said plurality of epoch parameters including a plurality of reflection coefficients, wherein analyzing the first epoch includes converting the plurality of reflection coefficient to a plurality of predictor coefficients, and the plurality of predictor coefficients are used to inverse filter a plurality of bias removed epoch samples to produce a residue signal.</u>

27.   (Original) The method of claim 26, wherein the variable transmission rate of the plurality of compressed signals is dynamically set.

28.   (Original) The method of claim 26, wherein the plurality of signals in a compressed format are speech signals.

29.   (Currently Amended) The method of claim 26, wherein encoding comprises:

locating an epoch;

~~analyzing a first epoch;~~

analyzing a second epoch; and

assembling a frame.

30.   (Original) The method of claim 26, wherein the transmitting of the plurality of compressed signals is in one of a half frame and a full frame.

31.   (Previously Amended) The method of claim 26, further comprising:
    establishing a priority level of each of the plurality of prioritized epoch parameters based on quality of speech.

32.   (Previously Amended) The method of claim 26, wherein the transmitting of the plurality of compressed signals at variable frame rates based on the plurality of prioritized epoch parameters improves signal transmission during dynamically changing bandwidth of the transmission medium while preserving perceptual quality of the signals.

33.   (Currently Amended) A method comprising:
    receiving a plurality of signals in a compressed format through a transmission medium at variable frame rates based on a plurality of prioritized epoch parameters to reduce signal bandwidth and by combining epochs, by correcting presumed errors in successive epoch lengths, and by extending epoch length patterns indicative of voiced speech areas into unvoiced speech areas, while preserving perceptual quality of the plurality of the signals;
    decoding the plurality of compressed signals; and
    transmitting the decoded signals to a receiving device,
wherein said prioritized epoch parameters are reduced based on each of said plurality of epoch data parameters respective priority,
 wherein said plurality of epoch parameters including a plurality of reflection coefficients, wherein said decoding approximates a residue signal produced by inverse filtering a plurality of bias removed epoch samples, where the inverse filtering is driven by a plurality of predictor coefficients that are produced by conversion of the plurality of reflection coefficients.

34.   (Original) The method of claim 33, wherein the variable transmission rate of the plurality of compressed signals is dynamically set.

35.   (Original) The method of claim 33, wherein the plurality of signals in a compressed format are speech signals.

36.   (Original) The method of claim 33, wherein decoding comprises:
disassembling and parameter decoding a frame;
generating an excitation;
synthesizing and filtering; and
scaling and filtering an output.

37.   (Previously Amended) The method of claim 33, wherein the receiving the plurality of compressed signals at variable frame rates based on the plurality of prioritized epoch parameters improves signal transmission during dynamically changing bandwidth of the transmission medium while preserving perceptual quality of the signals.

38.   (Original) The method of claim 33, wherein the receiving of the plurality of compressed signals is in one of a half frame and a full frame.

39.   (Previously Amended) The method of claim 33, wherein receiving comprises:
prioritizing each of the plurality of prioritized epoch parameters based on quality of speech.

40.   (Currently Amended) An apparatus comprising:
means for encoding a plurality of input signals at variable frame rates, the means for encoding including:
means for identifying input signal segments;

means for extracting a plurality of epoch parameters describing signal segments;

means for associating priority values to the plurality of epoch parameters;

means for combining epochs;

means for analyzing an epoch;

means for correcting presumed errors in successive epoch lengths; and

means for extending epoch length patterns indicative of voiced speech areas into unvoiced speech areas,

wherein said plurality of epoch parameters including a plurality of reflection coefficients, wherein said means for analyzing the epoch includes converting the plurality of reflection coefficient to a plurality of predictor coefficients, and the plurality of predictor coefficients are used to inverse filter the plurality of bias removed epoch samples to produce a residue signal.

41.   (Previously Amended) The apparatus of claim 40, wherein the means for encoding comprises compressing the plurality of input signals at variable frame rates based on the plurality of prioritized epoch parameters to dynamically reduce signal bandwidth while preserving perceptual signal quality.

42.   (Currently Amended) An apparatus comprising:

means for decoding a plurality of compressed signals;

the decoding means including:

means for reconstructing parameters from the plurality of compressed signals;

means for constructing an excitation signal;

means for producing a raw output signal; and

means for producing a final output signal,

wherein the means for decoding comprises decompressing the plurality of compressed signals at variable frame rates based on a plurality of prioritized epoch parameters and by combining epochs, correcting presumed errors in successive epoch

lengths, and by extending epoch length patterns indicative of voiced speech areas into unvoiced speech areas, to dynamically reduce signal bandwidth while preserving perceptual signal quality, said plurality of epoch parameters including a plurality of reflection coefficients, wherein said means for decoding further includes approximating a residue signal produced by inverse filtering a plurality of bias removed epoch samples, where the inverse filtering is driven by a plurality of predictor coefficients that are produced by converting the plurality of reflection coefficients.

43. (Cancelled).